REMARKS

At paragraphs 1-8, the examiner has requested information regarding various articles and the like that were used in development of applicants' invention, and particularly in developing equations 1 and 2 and expressions 3-6. Applicants wish to notify the examiner of the following articles.

1. Aki-Hiro Sato, and Hideki Takayasu, "Dynamic numerical models of stock market price: from microscopic determinism to macroscopic randomness" Physica A, 250(1998), 231-252.

2. Hideki Takayasu, Aki-Hiro Sato, and Misako Takayasu, "Stable infinite variance fluctuations in randomly amplified Langevin systems" Phys. Rev. Lett,, 79(1997), 9676-969.

3. H. Takayasu and M.. Takaysu, "Critical fluctuations of demand and supply", Physica A 269 (1999) 24-29.

Additionally, Applicants note that additional internally generated, unpublished documents were reviewed by the inventors during the process of invention of the pending application. Copies of these non-public documents have not been retained.

Applicants generally submit that the claimed invention differ from the features set forth in the references in that the coefficients of formulae in the present invention are estimated from real data, but the coefficients in the references are generally randomly selected. Furthermore, the present invention uses simultaneous equations with two unknowns (A and B), however, references 1-2 failed to enclose these two simultaneous equations with two unknowns. Further differences between the claimed invention and the articles submitted by the Applicants include the following.

In the first article (Article No. 1) the following equation is introduced.

$$X(t+1)=b(t)x(t)+f(t).$$

And, in it, it is thought that fluctuation which is near to that of real market price can be obtained by regarding B(t) and f(t) as random variables. The coefficient b(t) is related to B(t) of this invention, and the thesis of the 1999 Physica A (Article No. 3). Though price equations are extended into simultaneous equations with two unknown in the second article this second article would arrive at the same above equation and the B(t)would become the b(t) if special limit is taken. However, this the version of the above equation cannot describe a vibration phenomenon of price at all. So considering this equation, it is very incomplete in its predictive capability as compared to the present invention.

In the second article (Article No. 2), at equ.(9) of its body, following equation is derived from Dealer Model, a market model.

$$\Delta p_{s+1}=cn_s\Delta p_s=+\varnothing_2$$

However, s denotes time, Δp denotes price, so this article's equation would become the price equation of the Article No. 1 with one variable, if the term cn_s (the produce of constant c and random variable) is replaced into B(t). This price equation is therefore still considered as an equation with one variable.

Further, in the present invention coefficients A and B are estimated from real data but in the prior art, including the fourth article, coefficient B is determined in random manner and a method using estimation from real data is not described.

Therefore, Applicants submit that the claimed invention differs from these prior arts that were relied upon by these articles that were relied upon in development of the invention.

At paragraph 9 of the outstanding Office Action the Examiner has rejected claims 1-24 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly

claim the subject matter which the applicant regards as the invention. The Examiner states that the scope that price resilience indicator and market instability indicator are indefinite, lacking art recognized meanings.

Applicants wish to point out that a price resilience indication and market instability indicator are explained in the specification, regarding equations 1 and 2, and the explanation thereof at pages 23 -26 of the application as filed. Applicants further submit that the terms best regarding a best match and relatively small number is understood by one of ordinary skill in the art and that normally a substantially larger number of samples of data would be required to determine a correlation. Applicants therefore respectfully request that the rejection of claims 1-24 under 35 U.S.C. § 112 be withdrawn.

Applicants also present new claims 25-30 for consideration.

CONCLUSION

Applicants have made a diligent effort to provide information as required by the examiner. Early and favorable reconsideration of this information and the claimed invention are respectfully requested.

Respectfully submitted,

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